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The Cornelius Treatment for Peripheral Nerve Diseases

WITH REPORT OF A CASE

ELIZABETH BENTELE, M.D.
ST. LOUIS

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THE CORNELIUS TREATMENT FOR PERIPHERAL NERVE DISEASES

With Report of a Case *

ELIZABETH BENTELE, M.D.
ST. LOUIS

On my trip to Europe, 1908 and 1909, and while studying in Berlin, my attention was called to a peculiar and specific method in dealing with peripheral nerve troubles, originated by Oberstabsarzt Dr. Cornelius and taught to practitioners in one of the clinics at the Charité. I became intensely interested in the work done there and arranged at once for a practical course in Dr. Cornelius' clinic. During this time I treated daily from ten to twelve patients and had an opportunity of observing the course and results of the treatments, not only in my own patients but also in those treated by six other physicians working there at the same time.

Dr. Cornelius introduced his treatment about fifteen years ago and it was only after proving during a number of years the extreme usefulness and efficiency of his method that he conquered his standing in the profession. For the last five years Dr. Cornelius has been conducting a free clinic at the Charité for the training of physicians. The large number of patients seeking relief made it necessary last winter to increase the number of treatment rooms.

The Cornelius treatment is based on the existence of painful nerve-points the pressure on which will produce pain — a pressure of medium

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strength which in a healthy individual will be felt as pressure only not as pain. Therefore, a nerve-point is a point of the skin where the reaction is out of proportion to the amount of stimulation or a point of morbid nervous irritability. These nerve-points are subject to irritation by causes which in the normal individual do not produce any reaction at all — as the pull of muscular contraction, differences in the blood-supply (congestion or anemia), fluctuations of the atmospheric pressure, humidity and temperature, physical or mental exertion, etc. The nerve-point may be either centrally or peripherally located and its manifestations vary accordingly. If the nerve-point sends its impulse centripetally toward the brain its irritation causes sensory or reflex phenomena; if the nerve-point is centrally located and sends its impulse centrifugally toward the periphery the symptoms are of sensory, motor, vasomotor or secretory nature. If the stimulation originates from disease or irritation of the brain or spinal cord, the Cornelius treatment cannot reach it and is of no use. Therefore we have only to deal with those diseases in which the symptoms are the result of a morbid condition of the peripheral nerves, and of these the sensory nerves, with their painful nerve-points, are of main importance both in the production of the symptoms and in their cure. The nerve-points are found in the skin, the muscles, the joints, the nerve trunks and also in the intestines.

Cornelius distinguishes three classes of nerve-points:

- (1) Those the pressure on which produces local pain only.

- (2) Those from which the pain radiates along the same nerve trunk.
- (3) Those from which the pain radiates to the opposite side or some other part of the body.

The radiation from these nerve-points does not seem to follow any known anatomic law but to be rather arbitrary. Yet we will always find another nerve-point at the spot to which the pain was radiating.

As to the origin of the nerve-points, Cornelius advances the following theory: that chronic neuritis — being the underlying cause of a great variety of nerve troubles and pains — is a form of peripheral nerve disease caused by a merely mechanical impediment in the course of a nerve. This obstacle may be the result of an acute swelling (effusion of blood or serum) along the nerve filaments themselves, or it may be a chronic condition due to connective tissue formation constricting the nerve or pressing on it.

These formations may be so minute as to be difficult to demonstrate by the microscope and yet they may be so multiple and so effective as to cause the most severe pain. The greatest difficulty in trying to prove this theory lies in the fact that these patients do not die of their nerve troubles and therefore cannot be studied on the autopsy table by the specialist interested in this particular feature of their disease, but are either cured or drift away and die later from some other cause under some other physician's care. If you will permit me, I should like to repeat a similar theory for the explanation of the causation of nerve-pains, advanced in late years by Dr. R. T. Morris of New York, concerning chronic appendicitis. In his article "Further Notes on Harmful Involution of the Appendix," he says: "The irritation caused by the engagement of the nerve

filaments in contracting connective tissue leads to two distinct sets of symptoms — sensory and reflex.” This holds good not only for the appendix alone but may be generalized and applied to all peripheral nerves.

Cornelius claims two facts as being in favor of his theory :

- (1) That one almost always succeeds in curing a peripherally located nerve-point by appropriate “mechanical” treatment.
- (2) That especially scars in a large number of cases form the starting point of such nerve pain.

The German universities are a fruitful soil for the study of scars, which, as a result of the duel custom among the students, are so frequently seen crossing their faces and are especially apt to produce sensory phenomena in the skin of the face richly provided with nerves. These scars consisting of dense connective tissue are bound to exert a certain pressure or pull on their more sensitive surroundings. It is not by any means necessary that such scars be the consequence of some external injury. Contusions, bone fractures, dislocations, intramuscular or intraneural hemorrhages, a constant pressure or pull — all may be causes of large, small or minute scar formations inside the muscle, in the neighborhood of nerves. For instance, the pains of muscular rheumatism, as lumbago, may occur in acute or chronic form. The acute condition being due to sudden effusions through rents in the muscle on mechanical basis; the chronic form to lack of complete absorption and consequent organization of such effusions. Among other causes for scar formation Cornelius refers to gout, syphilis, diabetes, arteriosclerosis, chronic poisoning (lead,

arsenic, mercury, alcohol), and, in women especially, chlorosis. But whatever the cause may be, Cornelius considers each nerve-point as the consequence of a mechanical impediment of the nerve filament, caused by a lesion of the surrounding tissue. I found by experience that a number of nerve-points have a definite location which corresponds to the point of exit of the main nerve trunk or branch from the skull or from underneath a muscle, that is, to the place where it becomes superficial. In some cases, as for instance in neurasthenia, the whole surface of the body may be covered with nerve-points, and then a cure is much more difficult and protracted than in conditions where the nerve-points are fewer and more definite even if far more painful. Of course, Cornelius does not think that the final word on this subject has been spoken, but so far his theory seems to explain the facts most satisfactorily.

I should like to call attention to another point, namely: the lesions of chronic neuritis, being of the productive type, do not disappear with the removal of the cause and require special treatment.

The importance and intensity of the nerve-points is a varying one. To most patients their existence will be absolutely unknown and will cause, when demonstrated, a perfect surprise. Some patients may experience in the affected part only weakness, a tired feeling and numbness on slightest exertion. Again others will have attacks of sharp, shooting pains, or will continually be haunted by a dull sordid pain which makes them unfit for mental or physical work. The amount of discomfort up to the severest pain a patient experiences depends on the number and intensity

of such nerve-points. Cornelius has found as many as 500 of them in one patient, with about 100 on the head alone. These nerve-points are not all simultaneously excited, and on first examination one will only discover part of them; frequently new ones will arise later during the course of treatment.

I should like to call attention to this treatment as an excellent means of diagnosis, because all merely centrally located nerve troubles will show an absolute absence of painful points, while on the other hand, many a sharp pain, believed to be caused by the appendix or ovaries, can be demonstrated as located in the abdominal wall by lifting the latter and pressing with the finger-tip down on it; thus sometimes preventing an unnecessary operation. In Germany the diagnostic value of this treatment is especially appreciated by the army physicians, as there are among the soldiers a number of malingerers pretending to have all sorts of pains in order to escape some heavy exercise. An examination for nerve-points will disclose the deceit as the patients, not knowing what the examination means, will not react to the pressure neither voluntarily nor involuntarily unless the pain is real.

As to the treatment of "peripheral nerve troubles" Cornelius wants:

- (1) The conditions treated and removed which lead to the formation of nerve-points.
- (2) The resistance of the body against irritation increased.
- (3) The nerve-points treated.

If you will permit me, I shall only consider the last request, the treatment of the nerve-points. Cornelius concludes that, if these painful spots have a mechanical basis, there must be also

mechanical means for their removal, which he discovered in a certain kind of pressure directly applied over the painful spot. The explanation offered for the curative effect of such treatment is, that through the strong and often repeated pressure the constricting connective tissue is gradually loosened and broken up, by this means freeing the nerve and removing the cause of pain. Cornelius treated successfully sciatica, facial and intercostal neuralgia, heart neuroses, neurasthenia, hysteria, migraine, painful scars, occupation neuroses, cases of so-called rheumatism, etc.

Without going into further details of the treatment itself, I shall present to you the course of a case of trifacial neuralgia of the right side and intercostal neuralgia especially pronounced in the back. Very soon after my arrival in St. Louis in November, 1909, I became acquainted, through the kindness of Dr. Mary McLean, with Dr. A. B., who was willing to submit to the treatment. Dr. B.'s history, as far as it interests us, is the following:

Twenty years ago she had a severe attack of neuralgia involving the superior dental branches of the right trigeminus which subsided after the extirpation of one healthy tooth. These attacks recurred and became more frequent about five years ago then involving the ophthalmic division. About six years ago a steadily increasing intercostal neuralgia developed. Also, two years later a fibroid tumor was discovered and this, together with a chronic adherent appendix was removed through operation by Dr. Mary McLean. The neuralgic pains subsided for a short period and returned with increased severity. Especially the backache involving the dorsal region from the second to the eighth dorsal nerve of the right side

was almost intolerable. Several physicians of this city treated Dr. B. until the time of my arrival without affording her permanent relief. On examination I found edema of the hands and feet with normal urinary findings and an anatomically normal heart, but which showed nervous symptoms, the patient suffering frequently from palpitation and occasional attacks at night simulating angina pectoris. A lichen planus, which first appeared at the end of September, 1909, involved the right wrist, the flexor side of the elbow joints, both axillæ and both thighs. The abdominal scar showed keloid formation and was extremely sensitive to the touch, causing the patient much distress. An examination for nerve-points showed twenty-two about the head, involving all three branches of the fifth nerve on both sides and the great occipital nerve mainly on the right side, and seventy-eight about the chest, neck, back and upper arms, all of them highly irritated and sensitive. The treatments were begun on Dec. 13, 1909, and given five or six times a week. After thirty-three treatments the patient's sleep, which had been very poor and frequently interrupted by the gnawing backache, began to improve, becoming more prolonged and deeper. At this same time the palpitation of the heart and the edema of the hands and feet disappeared entirely and the neuralgia was less severe. As a curious and unexplained incident it may be mentioned that at the thirty-third treatment, fourteen new nerve-points appeared along the right rectus muscle and the costal arch, which disappeared again on March 5, at the fifty-ninth treatment. The improvement in the neuralgic pains in face and back was slow but constant with occasional slight attacks after physical or mental strain. At the beginning of April,

1910, the eruption of the lichen planus began to annoy the patient very much. A skin specialist treated her but the eruption did not subside until September, 1910, after having persisted a year. The nerve treatments were stopped on May 24, after the patient had received eighty-nine treatments. Dr. B. was so much improved that she could go East for the summer, being for several months absolutely free from pain. Unfortunately for her a close relative was taken ill in July and since then she has lived under the severest physical and mental strain, getting frequently for days in succession not more than two hours sleep, so that she broke down about Christmas time after having remained well for six months under the most trying circumstances.

The patient presented herself again for treatment. The nerve-points at present are less in number, but extremely irritated. There is prospect of relieving her in a short time.

814 Metropolitan Building.

